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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,997

03/09/2007

Henning Buchold

23508

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535 7590 10/16/2008

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EXAMINER

GODENSCHWAGER, PETER F

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,997	<b>Applicant(s)</b> BUCHOLD ET AL.	
	<b>Examiner</b> PETER F. GODENSCHWAGER	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-12 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 30, 2008 has been entered.

### ***Claim Objections***

Claim 9 is objected to because of the following informalities: The word "N-substituted" in line 4 of the claim has a space in it that appears to be a typo. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat. No. 4,443,622) in view of Burgman et al. (US Pat. No. 5,709,950) when taken with Harder et al. (US Pat. No. 4,436,668).

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Smith teaches a process of reacting polymeric multifunctional alcohols (diethylene glycol) with urea under a vacuum at 150 °C or 160 °C (Examples II, III, and IV) to up to 200 °C (2:25-30). The Office recognizes that the claimed products are not positively taught by the reference, namely the formation of carbamate and carbonate reaction products. However, the reference teaches all of the claimed ingredients, process steps and process conditions. Therefore, the claimed products would inherently be achieved by carrying out the disclosed process, as evidenced by Harder et al. which shows that carbamic acid esters (which could be carbamates formed from a initial reaction of urea and an alcohol) further react with another equivalent of alcohol to form carbonates especially at temperatures above 140 °C (1:45-65).

Smith does not teach the polymeric multifunctional alcohol as a mixture of polyether polyols. However, Burgman et al. teaches reacting one or more (includes mixtures) polyetherpolyols with 8-100 repeat units (anticipating the polyetherpolyether polyols of formula I of instant claim 9) with urea to form carbamates (Structure III, 5:13-40, 58-62). Smith and Burgman et al. are combinable because they are concerned with solving a problem of similar technical difficulty, namely reacting polymeric multifunctional alcohols with urea to form carbamates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the polyetherpolyols of Burgman with the teachings of Smith and would have been motivated to do so because Burgman et al. teaches that the reaction are useful in formulating colored film-forming base coats (1:65-2:20). Furthermore, Burgman et al. teaches that one could make these carbamates using reaction conditions typically employed by those skilled in the art when reacting polyols with urea (5:58-62).

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Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat. No. 4,443,622) in view of Burgman et al. (US Pat. No. 5,709,950) when taken with Harder et al. (US Pat. No. 4,436,668).

Smith teaches a process of reacting polymeric multifunctional alcohols (diethylene glycol) with urea under a vacuum at 150 °C or 160 °C (Examples II, III, and IV) to up to 200 °C (2:25-30) in the presence of a catalyst such as magnesium oxide (an oxide of a group IIb element) (2:35-41). The Office recognizes that all of the claimed composition properties are not positively taught by the reference, namely the formation of carbamate and carbonate reaction products. However, the reference teaches all of the claimed ingredients, process steps and process conditions. Therefore, the claimed composition properties would inherently be achieved by carrying out the disclosed process, as evidenced by Harder et al. which shows that carbamic acid esters (which could be carbamates formed from a initial reaction of urea and an alcohol) further react with another equivalent of alcohol to form carbonates (1:45-65).

Smith does not teach the polymeric multifunctional alcohol as mixtures of polyether polyols. However, Burgman et al. teaches reacting one or more (includes mixtures) polyetherpolyols with 8-100 repeat units (anticipating the polyetherpolyether polyols of formula I of instant claim 9) with urea to form carbamates (Structure III, 5:13-40, 58-62). Smith and Burgman et al. are combinable because they are concerned with solving a problem of similar technical difficulty, namely reacting polymeric multifunctional alcohols with urea to form carbamates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the polyetherpolyols of Burgman et al. with the teachings of Smith and would have been motivated to do so because Burgman et al. teaches that the reaction are useful in

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formulating colored film-forming base coats (1:65-2:20). Furthermore, Burgman et al. teaches that one could make these carbamates using reaction conditions typically employed by those skilled in the art when reacting polyols with urea (5:58-62).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/571,479.

Although the conflicting claims are not identical, they are not patentably distinct from each other because they significantly overlap in scope as both claim the steps of reacting a urea with the same mixture of polyetherpolyols or polyvinylalcohols.

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Claims 10-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/571,476. Although the conflicting claims are not identical, they are not patentably distinct from each other because they significantly overlap in scope as both claim the steps of reacting a urea with the same mixture of polyetherpolyols or polyvinylalcohols.

### ***Response to Arguments***

Applicant's arguments with respect to claims 9-12 have been considered but are moot in view of the new ground(s) of rejection. See specifically the use by Burgman et al. of one or more polyetherpolyols (mixtures) as set forth in the rejections above.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER F. GODENSCHWAGER whose telephone number is (571)270-3302. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./  
Supervisory Patent Examiner, Art Unit 1796

/P. F. G./  
Examiner, Art Unit 1796  
October 6, 2008